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LOWFIELD ROAD TRAFFIC SIGNALS, BOLTON UPON DEARNE

**Stage 1 Road Safety Audit
Client: Gleeson Homes and Regeneration**

14/12/2021

Quality Management

Issue Record

ISSUE	REVISION	DESCRIPTION	DATE	PREPARED BY	CHECKED
1	-	Draft	13 December 2021	<i>M Morley</i>	<i>D Barker</i>
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Lowfield Road Traffic Signals, Bolton upon Dearne

Stage 1 Road Safety Audit

14/12/2021

Overseeing Organisation

Barnsley Metropolitan Borough Council

Client

Gleeson Homes and Regeneration

Design Organisation

Bryan G Hall

Road Safety Audit Team Organisation

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APPENDIX A – Scheme Documents Issued for Road Safety Audit

APPENDIX B – Location Plan

1 Introduction

- 1.1.1 This report results from a Stage 1 Road Safety Audit carried out on the shuttle-working traffic signals proposed for Lowfield Road railway bridge, Bolton upon Dearne. This is at the request of Martin Crabtree, Bryan G Hall (Design Organisation) on behalf of Barnsley Metropolitan Borough Council (Overseeing Organisation).
- 1.1.2 The terms of reference of the Road Safety Audit are as described in DMRB GG 119. The Road Safety Audit Team has examined and reported only on the road safety implications in the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.
- 1.1.3 The Road Safety Audit Team membership consisted of:


Team Leader **Martin Morley, BSc (Hons), MCIHT, MSoRSA**
 Certificate of Competency in Road Safety Audit gained in Feb 2013
 Partner, Road Safety Initiatives LLP

Team Member **Dean Barker, MIHE**
 Certificate of Competency in Road Safety Audit gained in May 2014
 Consultant, Road Safety Initiatives LLP

- 1.1.4 The Road Safety Audit was undertaken in accordance with the Road Safety Audit Brief provided by Martin Crabtree, Bryan G Hall (Design Organisation) on behalf of Barnsley Metropolitan Borough Council (Overseeing Organisation). The Road Safety Audit comprised an examination of the documents provided and listed in **Appendix A**.
- 1.1.5 The Road Safety Audit Team visited the site together on Wednesday 8th December 2021 between 13:15 and 13:30 hours. It was sunny and the road surfaces were wet at the time of the site visit. During the site visit, traffic flows were light, and one pedestrian was observed.
- 1.1.6 All Road Safety problems are referenced to the design drawings and the locations have been indicated on the plans supplied with the Road Safety Audit Brief in **Appendix B**.
- 1.1.7 This Road Safety Audit will review the road safety aspects of the proposed shuttle-working traffic signals in Lowfield Road on the bridge over the railway, directly adjacent to Bolton upon Dearne station (Wakefield Line).
- 1.1.8 The objective of the scheme is to provide a widened footway on the north side of Lowfield Road. This is in order to improve pedestrian access for Phase 3 (97 new dwellings) for land off Lowfield Road at Prior Court.
- 1.1.9 The Road Safety Audit Team was not informed of any Departures from Standard.

2 Items Raised at this Stage 1 Road Safety Audit


2.1 GENERAL

PROBLEM 2.1.1	
Location	Bridge over railway.
Summary	Potential for debris associated with an errant vehicle to foul the railway line.
<p>The existing bridge over the railway has a traditional masonry parapet and furthermore, the containment on the approaches is not ideal. The introduction of traffic signals may increase traffic speeds if drivers 'race to beat the lights' and if so, could increase the likelihood of a vehicle leaving the carriageway on the immediate approaches to the bridge. A larger vehicle may penetrate a fence or a parapet, possibly causing debris to foul the track on the railway alignment below, leading to an incident and subsequent injury</p>	
RECOMMENDATION	
It is recommended that the risk of debris fouling the track is assessed and a mitigation measure is included in the design, if appropriate. 'Managing the accidental obstruction of the railway, road vehicles' (DfT, September 2020) is a useful reference.	

PROBLEM 2.1.2	
Location	Junctions adjacent to bridge – right-turners into Calder Road or right turners into the un-named access road (leads to Number One Auto Salvage).
Summary	Potential for overtaking and head-on conflicts.
<p>The traffic signals would necessarily result in delays for through traffic in both directions (however short). Due to the very close proximity of the proposed stop-lines to the adjacent side road junctions, even a short queue would be enough to block the paths of following drivers intending to turn right into the adjacent side road. Some right-turning drivers may be tempted to overtake short queues to execute turns from the wrong side of the road (rather than waiting for the lights to change) with a resulting risk of head-on conflicts with vehicles coming over the bridge on a green light. Due to the vertical alignment, visibility between opposing drivers would be limited, and there would also be a likelihood of higher speeds in both directions (due to overtaking vehicles travelling at a speed to clear the road as quickly as possible, and oncoming vehicles travelling through a green light into a one-way section, unopposed).</p>	
RECOMMENDATION	
It is recommended that the risk of overtaking is mitigated e.g., by providing 'prohibit' double-white-lines along both approaches to the traffic signal stop lines.	

2.2 WALKING, CYCLING AND HORSE RIDING

PROBLEM 2.2.1	
Location	Bridge over railway.
Summary	Potential for a conflict involving a cyclist and an overtaking vehicle.
<p>The carriageway will be narrowed to a width of 3.5m in order to allocate additional width to the adjacent (northern) footway. It is recognised that narrow carriageways are a feature of many railway, canal and river bridges across the UK, nevertheless, the proposed carriageway width is such that some drivers may attempt to overtake cyclists, for example those cycling slowly up the hump-back bridge. This may lead to a cyclist being 'squeezed' and, possibly, an injury collision.</p>	
RECOMMENDATION	
<p>It is recommended that there is a mitigation measure for the potential 'squeeze' problem for cyclists. The running lane could be made narrower¹ so that vehicle drivers were discouraged from trying to pass cyclists or made wider to allow for safe overtaking. Suitable warning signs or markings could also be provided.</p>	

PROBLEM 2.2.2	
Location	Un-named access road (leads to Number One Auto Salvage).
Summary	Potential for a conflict involving a pedestrian crossing the access road.
<p>The drawings do not show any proposals for pedestrians to cross the un-named access road where the northern footway is to be widened. The development will lead to increased walking and if pedestrians are not appropriately accommodated, there is a risk of a person being struck and injured by a turning vehicle when crossing through the junction mouth.</p>	
RECOMMENDATION	
<p>It is recommended that a safe, accessible, and convenient crossing is provided across the un-named access road.</p>	

**** END OF IDENTIFIED PROBLEMS AND RECOMMENDATIONS MADE AT THIS STAGE 1
ROAD SAFETY AUDIT ****

¹ Sustrans advises against providing lane widths between 3.2m and 4m as they are not wide enough for vehicles to safely pass cyclists, but not narrow enough for cyclists to feel safe travelling in the centre of the lane ahead of vehicles. Similar guidance is contained within LTN 1/20.

3 Audit Team Statement

We certify that this Road Safety Audit has been carried out in accordance with GG 119.

ROAD SAFETY AUDIT TEAM LEADER	
Name:	Martin Morley
Signed:	
Position:	Partner
Organisation:	Road Safety Initiatives LLP
Date:	14 December 2021
ROAD SAFETY AUDIT TEAM MEMBER	
Name:	Dean Barker
Signed:	
Position:	Consultant
Organisation:	Road Safety Initiatives LLP
Date:	14 December 2021

Appendices, Figures and Tables

Appendix A: Scheme Documents Issued for Road Safety Audit

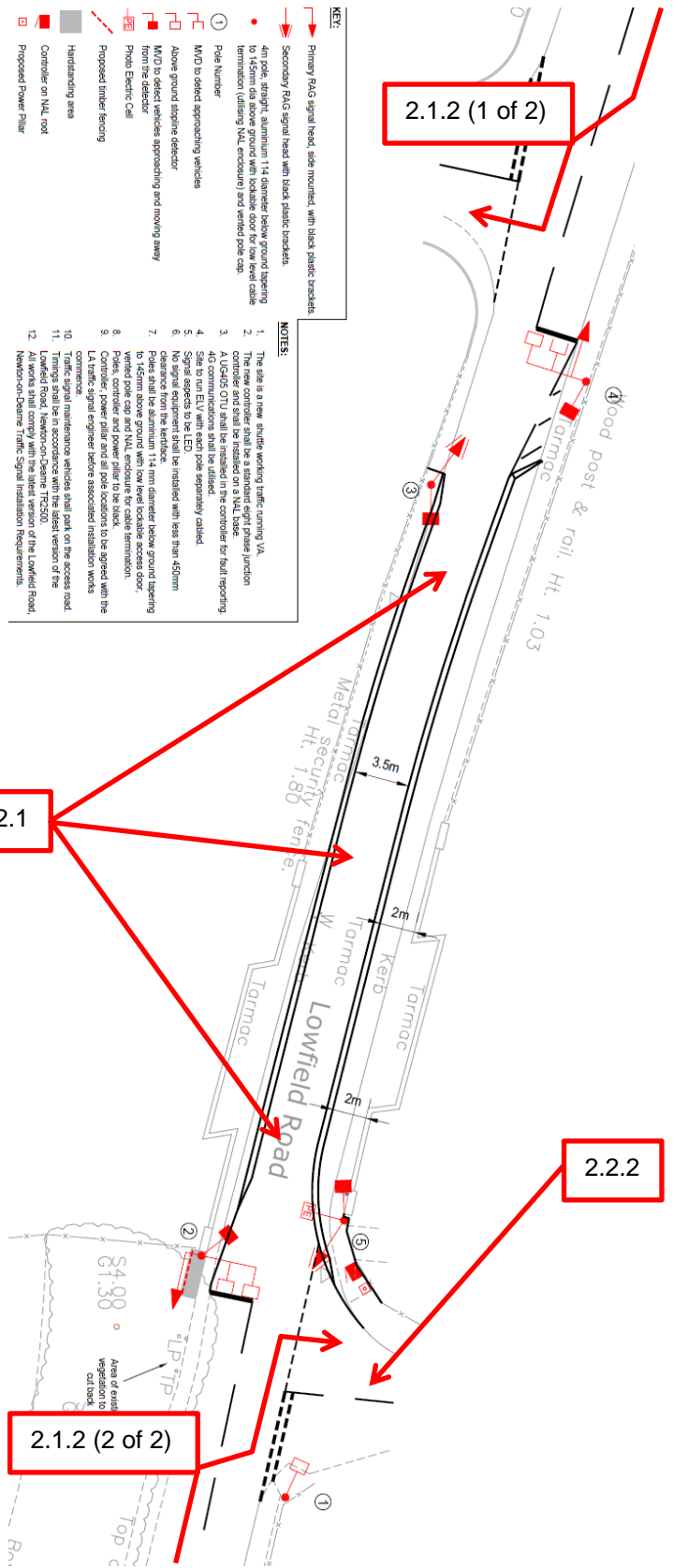
DRAWING/DOCUMENT NUMBER	REV	TITLE
20/237/DE/1300/001	A	Traffic Signal Layout
20/237/DE/1300/002	A	Traffic Signal Ducting Layout
20/237/ATR/003	-	Swept Path Analysis of Bridge

The following documents were also made available to the Road Safety Audit Team:

- “Proposed Residential Development, Land off Lowfield Road Bolton upon Dearne – Phase 3, Transport Assessment” dated June 2020
- Peak hours turning traffic diagrams for Lowfield Road (Survey Date - 25/11/2021, 08:15-09:15 and 16:00-17:00).

Appendix B: Location Plan

Numbers refer to problems identified in the text.



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